Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-38. (Canceled)

39. (Previously presented) A controller device for use in a data storage network having one or more redundancy groups; the controller device comprising:

a first array management function (AMF) that provides access to a first redundancy group in the data storage network; and

a communication port for coupling to the network, wherein the first AMF is able to communicate over the network with the first redundancy group and one or more other AMFs in the network that concurrently share access to the first redundancy group;

wherein when the first AMF desires to perform an operation on a first resource in the first redundancy group, the first AMF arbitrates with the one or more other AMFs that share access to the first redundancy group for a lock on the first resource, whereupon the first AMF performs the operation on the first resource and concurrently sends replication data and state information associated with the first resource to the other AMFs such that if the first AMF fails while performing the operation, one of the other AMFs is able to complete the operation.

40. (Previously presented) The controller device of claim 39, further comprising:

a second AMF that provides access to a second redundancy group in the data storage network, wherein the second AMF is able to communicate over the network with the second redundancy group and one or more other AMFs in the network that concurrently share access to the second redundancy group;

wherein when the second AMF desires to perform an operation on a second resource in the second redundancy group, the second AMF arbitrates with the one or more other AMFs that share access to the second redundancy group for a lock on the second resource,

whereupon the second AMF performs the operation on the second resource and concurrently sends replication data and state information associated with the second resource to the other AMFs that share access to the second redundancy group such that if the second AMF fails while performing the operation, one of the other AMFs that share access to the second redundancy group is able to complete the operation.

41. (Previously presented) The controller device of claim 39, further comprising:

a second AMF that provides access to the first redundancy group, wherein the second AMF is able to communicate over the network with the first redundancy group and the one or more other AMFs that share access to the first redundancy group;

wherein when the second AMF desires to perform an operation on a second resource in the first redundancy group, the second AMF arbitrates with the first AMF and the one or more other AMFs that share access to the first redundancy group for a lock on the second resource, whereupon the second AMF performs the operation on the second resource and concurrently sends replication data and state information associated with the second resource to the first AMF and the other AMFs that share access to the first redundancy group such that if the second AMF fails while performing the operation, one of the first AMF and the other AMFs that share access to the first redundancy group is able to complete the operation.

42. (Previously presented) The controller device of claim 41, wherein the first and second AMFs communicate over the network.

43. (Previously presented) The controller device of claim 39, further comprising a bus port that provides for communication with one of a host and one or more other controller devices over a bus.

44. (Previously presented) The controller device of claim 43, wherein the bus port is a PCI port.

45. (Previously presented) The controller device of claim 39, wherein the first redundancy group is spread across one or more disks.

46. (Previously presented) The controller device of claim 39, wherein the communication port is a fibre-channel port.

47. (Previously presented) The controller device of claim 39, wherein the first AMF does not release the lock on the first resource until a one of the other AMFs that share access to the first redundancy group arbitrates for a lock on the first resource.

48. (Previously presented) The controller device of claim 39, wherein if the first AMF fails, one of the other AMFs arbitrate for a lock on the first resource, whereupon a second one of the other AMFs obtains the lock and completes the operation.

49. (Previously presented) The controller device of claim 39, wherein the operation performed by the first AMF on the first resource includes a plurality of steps, wherein the first AMF performs each step of the operation on the resource, and for each step concurrently sends replication data and state information associated with the first resource to the other AMFs that share access to the first redundancy group, such that if the first AMF fails while performing any of the steps of the operation, one of the other AMFs is able to complete the operation.

50. (Previously presented) A controller device for use in a data storage network having one or more redundancy groups; the controller device comprising:

first and second array management functions (AMFs), each providing access to a different redundancy group in the data storage network; and

a communication port for communicably coupling the first and second AMFs to the network;

wherein when the first AMF desires to perform an operation on a first resource in a first redundancy group, the first AMF arbitrates with other AMFs in the network that share access to the first redundancy group for a lock on the first resource, whereupon the first AMF

performs the operation on the first resource and concurrently sends replication data and state information associated with the first resource to the other AMFs such that if the first AMF fails while performing the operation, one of the other AMFs is able to complete the operation.

51. (Previously presented) The controller device of claim 50, wherein when the second AMF desires to perform an operation on a second resource in a second redundancy group, the second AMF arbitrates with other AMFs in the network that share access to the second redundancy group for a lock on the second resource, whereupon the second AMF performs the operation on the second resource and concurrently sends replication data and state information associated with the second resource to the other AMFs that share access to the second redundancy group such that if the second AMF fails while performing the operation, one of the other AMFs that share access to the second redundancy group is able to complete the operation.

52. (Previously presented) The controller device of claim 50, further comprising a bus port that provides for communication with one of a host and one or more other controller devices over a bus.

53. (Previously presented) The controller device of claim 52, wherein the bus port is a PCI port.

54. (Previously presented) The controller device of claim 50, wherein the communication port is a fibre-channel port.

55. (Previously presented) The controller device of claim 50, wherein the first AMF does not release the lock on the first resource until a one of the other AMFs that share access to the first redundancy group arbitrates for a lock on the first resource.

56. (Previously presented) The controller device of claim 50, wherein if the first AMF fails, one of the other AMFs arbitrates for a lock on the first resource, whereupon a second one of the other AMFs obtains the lock and completes the operation.

57. (Previously presented) The controller device of claim 50, wherein the operation performed by the first AMF on the first resource includes a plurality of steps, wherein the first AMF performs each step of the operation on the resource, and for each step concurrently sends replication data and state information associated with the first resource to the other AMFs that share access to the first redundancy group, such that if the first AMF fails while performing any of the steps of the operation, one of the other AMFs is able to complete the operation.

58. (Previously presented) A network device for use in a data storage network having one or more redundancy groups, the device comprising:

a communication bus;

a first controller executing a first array management function (AMF) that provides access to a first redundancy group in the data storage network, the first controller including a first network port for coupling the first controller to the network, and a first bus port coupling the first controller to the communication bus; and

a second controller executing a second AMF that provides access to the first redundancy group in the data storage network, the second controller including a second network port for coupling the second controller to the network, and a second bus port coupling the second controller card to the communication bus;

wherein when the first AMF desires to perform an operation on a first resource in the first redundancy group, the first AMF arbitrates with the second AMF and other AMFs in the network sharing access to the first redundancy group for a lock on the first resource, whereupon the first AMF performs the operation on the first resource and concurrently sends replication data and state information associated with the first resource to the second AMF and the other AMFs sharing access to the first redundancy group such that if the first AMF fails while performing the operation, one of the second AMF and the other AMFs sharing access to the first redundancy group is able to complete the operation.

59. (Previously presented) The network device of claim 58, wherein the first AMF arbitrates with the second AMF over the communication bus.

60. (Previously presented) The network device of claim 58, wherein the first AMF arbitrates with the second AMF over the network.

61. (Previously presented) The network device of claim 58, wherein the communication bus is a PCI bus.

62. (Previously presented) The network device of claim 58, wherein the first and second network ports are fibre-channel ports.

63. (Previously presented) The network device of claim 58, wherein the first AMF does not release the lock on the first resource until a one of the second AMF and the other AMFs that share access to the first redundancy group arbitrates for a lock on the first resource.

64. (Previously presented) The network device of claim 58, wherein if the first AMF fails, one of the second AMF and the other AMFs arbitrates for a lock on the first resource and completes the operation once a lock is obtained.

65. (Previously presented) The network device of claim 58, wherein the operation performed by the first AMF on the first resource includes a plurality of steps, wherein the first AMF performs each step of the operation on the resource, and for each step concurrently sends replication data and state information associated with the first resource to the second AMF and the other AMFs that share access to the first redundancy group, such that if the first AMF fails while performing any of the steps of the operation, one of the second AMF and the other AMFs is able to complete the operation.-A data storage system comprising:

a redundancy group including a plurality of resources;

two or more array management functions (AMFs) sharing access to the redundancy group, wherein the AMFs provide concurrent access to the redundancy group for associated host systems; and

an interconnect medium for connecting the AMFs with the redundancy group;

wherein when a first one of the AMFs desires to perform an operation on a first resource in the redundancy group, the first AMF arbitrates with the other AMFs sharing access to the redundancy group for a lock on the first resource, whereupon the first AMF performs the operation on the first resource and concurrently sends replication data and state information associated with the first resource to the other AMFs such that if the first AMF fails while performing the operation, one of the other AMFs is able to complete the operation.